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Form PTO-101	
ATTY DOCKET NO. 91-95 E	SERIAL NO. 09/929,870
FILING DATE: August 14, 2001	
APPLICANT: Schwartz et al.	GROUP 1754 1760

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U.S. PATENT DOCUMENTS

Exmr. Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
NB	1	3,607,863	09/21/71	Dosch	260	209	
	1	3,754,951	08/21/73	Coatney	106	56	
	3	4,083,730	04/11/78	Kwech et al.	106	89	
	4	4,330,633	05/18/82	Yoshisato et al.	501	152	
	5	4,791,079	12/13/88	Hazbun	502	4	
	6	4,793,904	12/27/88	Mazanec et al.	204	59	
	7	4,802,958	02/07/89	Mazanec et al.	204	80	
	8	4,827,071	05/02/89	Hazbun	585	443	
	9	4,848,984	07/18/89	Ezis et al.	51	309	
	10	4,933,054	06/12/90	Mazanec et al.	204	80	
	11	5,160,618	11/03/92	Burggraaf et al.	210	490	
	12	5,160,713	11/03/92	Mazanec et al.	423	210	
	13	5,210,059	05/11/93	Matturo et al.	502	4	
	14	5,240,473	08/31/93	Carolan et al.	95	54	
	15	5,240,480	08/31/93	Thorogood et al.	96	4	
	16	5,306,411	04/26/94	Mazanec et al.	204	265	
	17	5,356,728	10/18/94	Balachandran et al.	429	8	
	18	5,366,712	11/22/94	Violante et al.	423	248	
	19	5,393,325	02/28/95	Edlund	95	56	
	20	5,397,541	03/14/95	Post	422	88	
	21	5,430,209	07/04/95	Agaskar et al.	585	315	
	22	5,466,646	11/14/95	Moser	502	60	
NB	23	5,534,471	07/09/96	Carolan et al.	502	4	

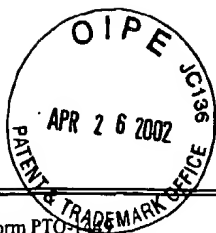


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N3	24	5,569,633	10/29/96	Carolan	502	4	
	25	5,591,315	01/07/97	Mazanec et al.	205	462	
	26	5,639,437	06/17/97	Balachandran et al.	423	593	
	27	5,648,304	07/15/97	Mazanec et al.	501	134	
	28	5,693,212	12/02/97	Mazanec et al.	205	462	
	29	5,702,999	12/30/97	Mazanec et al.	501	152	
	30	5,712,220	01/27/98	Carolan et al.	502	400	
	31	5,714,091	02/03/98	Mazanec et al.	252	373	
	32	5,723,035	03/03/98	Mazanec et al.	204	295	
	33	5,744,015	04/28/98	Mazanec et al.	204	295	
	34	5,779,904	07/1998	Ruderman et al.	210	500.25	
	35	5,788,748	08/04/98	Mazanec et al.	96	4	
	36	5,817,597	10/06/98	Carolan et al.	502	400	
	37	5,821,185	10/13/98	White et al.	502	4	
	38	6,010,614	01/04 /00	Keskar et al.	205	765	
N3	39	6,056,807	05/02/00	Carolan et al.	96	4	

N3	40	3,535,163	10/20/70	Dzieciuch & Weber	136	6	
1	41	5,139,077	08/18/92	Das et al.	164	66.1	
	42	5,580,497	12/03/96	Balachandran et al.	252	519	
	43	5,624,542	04/29/97	Shen et al.	204	283	
	44	5,723,074	03/03/98	Balachandran et al.	252	519	
	45	5,888,272	03/30/99	Prasad et al.	95	54	
	46	5,911,860	06/15/99	Chen et al	204	295	
N3	47	6,033,632	03/07/00	Schwartz et al.	422	190	



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NB	48	6,037,514	03/14/00	White et al.	585	520	
	49	6,056,802	5/02/00	Kita et al	75	249	
	50	6,146,549	11/14/00	Mackay et al.	252	373	
	51	6,165,431	12/26/00	Mackay et al.	413	219	
NB	52	6,214,757 B1	04/10/01	Schwartz et al.	502	4	

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		Document Number	Date	Country	Class	Subclass	Translation Yes/No
NB	53	WO 97/41060	11/06/97	PCT WIPO	C01B 13/00	B01J	
	54	EP 438, 902 B1	05/07/97	EP	H01M 8/10	C25B	
	55	EP 766, 330 A1	04/02/97	EP	H01M 8/12	B01D	
	56	EP 705, 790 A1	04/10/96	EP	C01B 13/02	C04B	
	57	EP 673, 675 A2	09/27/95	EP	B01D 71/02	H01M	
	58	WO 94/24065	10/27/94	PCT WIPO	C04B 35/00		
	59	EP 399, 833	11/28/90	EP	B01D 71/02	H01M	
NB	60	GB 2,203,446 A	10/19/88	GB	C07C 5/32	C25B	
NB	61	90305684 4	11/28/90	Mazanec et al.			
NB	62	WO 99/21649	05/06/99	PCT	B01J 19/24	19/00	

#### OTHER PRIOR ART (including Author, Title, Date, Pertinent Pages, etc.)

NB	63	Berry, L.G. and Mason B., (1983) <u>Mineralogy</u> , 2 <sup>nd</sup> Edition, W. H. Freeman and Co. New York pp 257,364,369,372,-373
NB	64	"The Periodic Table of Elements" IUPAC (1983)
NB	65	Chick, L.A. et al., (Sept 1990) "Glycine-nitrate combustion synthesis of oxide ceramic powders," <i>Mater. Lett.</i> 10(1,2):6-12
NB	66	Cook, R.L. and Sammells, A.F., (1991) "On the systematic selection of perovskite solid electrolytes for intermediate temperature fuel cells," <i>Solid State Ionics</i> 45:311-321



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Form PTO-1447		
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APPLICANT: Schwartz et al.		GROUP 1754

N3	67	Cook, R.L. et al., (Oct 1990) "Perovskite Solid Electrolytes for Intermediate Temperature Solid Oxide Fuel Cells," <i>J. Electrochem. Soc.</i> 137:3309-3310
	68	Crespin, M. and Hall, K.W., (1981) "The Surface Chemistry of Some Perovskite Oxides," <i>J. Catal.</i> 69:359-370
	69	Gallagher, P.K. et al., (Oct 1964) "Mössbauer Effect in the System $\text{SrFeO}_{2.5-3.0}$ ," <i>J. Chem. Phys.</i> 41(8):2429-2434
	70	Goodenough et al., (1990) "Oxide-ion conduction in $\text{Ba}_2\text{In}_2\text{O}_5$ and $\text{Ba}_3\text{In}_2\text{MO}_8$ ( $\text{M}=\text{Ce}, \text{Hf}, \text{or Zr}$ )," <i>Solid State Ionics</i> 44:21-31
	71	Greaves, C. et al., (1975) "A Powder Neutron Diffraction Investigation of the Nuclear and Magnetic Structure of $\text{Sr}_2\text{Fe}_2\text{O}_7$ ," <i>Acta Cryst.</i> B31:641-646
	72	Hawley's Condensed Chemical Dictionary. 13 <sup>th</sup> Ed., Revised by Richard J. Lewis Sr., John Wiley's Sons, Inc. USA ISBN 0-471-29205-2, page 852
	73	Kuchynka, D.J. et al., (May 1991) "Electrochemical Natural Gas Conversion to More Valuable Species," <i>J. Electrochem. Soc.</i> 138(5):1284-1299
	74	Matsumoto, Y, et al., (Nov 1980) "Oxygen Evolution on $\text{La}_{1-x}\text{Sr}_x\text{Fe}_{1-y}\text{Co}_y\text{O}_3$ Series Oxides," <i>J. Electrochem. Soc.</i> 127(11):2360-2364
	75	Pederson, L.R. et al., (Feb 1991) "Combustion synthesis of $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ : glycine/metal nitrate method," <i>Mater. Lett.</i> 10(9,10):437-443
	76	Pujare, N U and Sammells, A.F., (Oct 1988) "Methane Activation to $\text{C}_2$ Hydrocarbon Species in Solid Oxide Fuel Cell," <i>J. Electrochem. Soc.</i> 135(10):2544-2545
	77	Rostrup-Nielsen, J.R. and Bak Hansen, J. H., (1993) " $\text{CO}_2$ -Reforming of Methane over Transition Metals," <i>J. Catalysis</i> 144:38-49
	78	Sammells, T., (Sept 1991), "Rational Selection of Perovskites for Solid Electrolytes and Electrocatalysis," <i>Presented at BP America Research, Warrenville Research Center, September 16, 1991, 46pp</i>
	79	Sammells, A.F. and Cook, R.L., (1991), "Rational Selection of Advanced Solid Electrolytes for Intermediate Temperature Fuel Cells," presented at the Ceramic Conductors for Solid-State Electrochemical Devices Meeting, May 12-15, 1991, Snowbird, UT, <i>Solid State Electrolytes</i> 2:111-123
	80	Sammells, A.F. et al., (1992) "Rational selection of advanced solid electrolytes for intermediate temperature fuel cells," <i>Solid State Ionics</i> 52:111-123
N3	81	Schwartz, M. et al., (April 1993) "New Brownmillerite Solid Electrolytes," <i>J. Electrochem. Soc.</i> 140(4):L62-L63



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APPLICANT: Schwartz et al.		GROUP 1754

N3		82	Shin, S. and Yonemura, M., (1978) "Order-Disorder Transition of $\text{Sr}_2\text{Fe}_2\text{O}_7$ from Brownmillerite to Perovskite Structure at an Elevated Temperature," <i>Mat. Res. Bull.</i> 13:1017-1021
		83	Teraoka, Y. et al., (1989) "Development of Oxygen Semipermeable Membrane Using Mixed Conductive Perovskite-Type Oxides (Part 1)," <i>J. Ceram. Soc. Jpn. Inter. Ed.</i> 97:458-462
		84	Teraoka, Y. et al., (1985) "Oxygen Permeation Through Perovskite-Type Oxides," <i>Chem. Lett.</i> 1743-1746
		85	Teraoka, Y. et al., (1988) "Effect of Cation Substitution on the Oxygen Semipermeability of Perovskite-type Oxides," <i>Chem. Lett.</i> 503-506
		86	Teraoka, Y. et al., (1989) "Development of Oxygen Semipermeable Membrane Using Mixed Conductive Perovskite-Type Oxides (Part 2)," <i>J. Ceram. Soc. Jpn. Inter. Ed.</i> 97:523-529
		87	Teraoka, Y. et al., (1988) "Mixed Ionic-Electronic Conductivity of $\text{La}_{1-x}\text{Sr}_x\text{Co}_{1-y}\text{Fe}_y\text{O}_{3-\delta}$ ," <i>Mat. Res. Bull.</i> 23:51-58
		88	Teraoka, Y. et al., (1985) "Oxygen-Sorptive Properties of Defect Perovskite-Type $\text{La}_{1-x}\text{Sr}_x\text{Co}_{1-y}\text{Fe}_y\text{O}_{3-\delta}$ ," <i>Chem. Lett.</i> 1367-1370
		89	van der Pauw, L.J., (Feb 1958) "A Method of Measuring Specific Resistivity and Hall Effect of Discs of Arbitrary Shape," <i>Philips Res. Rep.</i> 13(1):1-9
N3		90	Zhen, Y.S. and Goodenough, J.B., (1990) "Oxygen-Ion Conductivity in $\text{Ba}_8\text{In}_6\text{O}_{17}$ ," <i>Mat. Res. Bull.</i> 25:785-790
EXAMINER <i>NBlat</i> DATE CONSIDERED <i>9-30-04</i>			
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			

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